

WHAT IS CLAIMED IS:

1. A semiconductor assembly, comprising:

a semiconductor package comprising a substrate, a die positioned on the substrate, and a lid positioned on the die;

a receiver sized to receive said semiconductor package;

a clamp, said clamp engaging the lid of said semiconductor package and said receiver, said clamp applying a clamping force to the lid of said semiconductor package to hold said semiconductor package to said receiver; and

a spring member having a clamp contact portion contacting said clamp and a substrate contact portion contacting the substrate of said semiconductor package, said spring member transferring a portion of the clamping force from the lid of said semiconductor package to the substrate of said semiconductor package.

2. The semiconductor assembly of claim 1, wherein said spring member is positioned between said clamp and the substrate of said semiconductor package, and wherein said spring member further comprises a plate-like member having an opening therein sized to receive the lid of said semiconductor package.

3. The semiconductor assembly of claim 2, wherein said spring member comprises a generally rectangular configuration.

4. The semiconductor assembly of claim 2, wherein said spring member further comprises at least one finger member having a distal end, said at least one finger member extending from about a periphery of said spring member to about the opening in said spring member so that the distal end of said at least one finger member is located at about the opening in said spring

member.

5. The semiconductor assembly of claim 4, wherein the periphery of said spring member defines a plane and wherein the distal end of said at least one finger member is not co-planar with said plane.

6. The semiconductor assembly of claim 4, wherein the periphery of said spring member comprises the clamp contact portion of said spring member and wherein the distal end of said at least one finger member comprises the substrate contact portion of said spring member.

7. The semiconductor assembly of claim 1, wherein said spring member comprises a beryllium-copper alloy.

8. The semiconductor assembly of claim 1, wherein said clamp comprises a heat sink.

9. The semiconductor assembly of claim 1, wherein said semiconductor package comprises a land grid array semiconductor package.

10. A spring member comprising a clamp contact portion and a substrate contact portion, said spring member being positionable between a clamp and a substrate of a semiconductor package, so that said spring member transfers to the substrate of the semiconductor package a portion of a clamping force applied by the clamp to a lid of the semiconductor package.

11. The spring member of claim 10, wherein said spring member comprises a plate-like member having a generally rectangular configuration and having an opening therein sized to receive the lid of the semiconductor package.

12. The spring member of claim 11, wherein said spring member further comprises at least one finger member having a distal end, said at least one finger member extending from about a periphery of said spring member to about the opening in said spring member so that the distal end of said at least one finger member is located at about the opening in said spring member.

13. The spring member of claim 12, wherein the periphery of said spring member defines a plane and wherein the distal end of said at least one finger member is displaced from said plane.

14. The spring member of claim 12, wherein the periphery of said spring member comprises the clamp contact portion of said spring member and wherein the distal end of said at least one finger member comprises the substrate contact portion of said spring member.

15. The spring member of claim 10, wherein said spring member comprises a beryllium-copper alloy.

16. An improved semiconductor mounting system of the type in which a clamp applies a clamping force to a lid of a semiconductor package to hold the semiconductor package to a semiconductor package receiver, wherein the improvement comprises a biasing member positioned between the clamp and a substrate of the semiconductor package, said biasing member transferring a portion of the clamping force from the lid of the semiconductor package to the substrate of the semiconductor package.

17. A spring member comprising a generally rectangularly-shaped plate-like member defining a central opening therein and at least one finger member having a distal end, said at least one finger member extending from a periphery of said generally rectangularly-shaped plate-like member to about the central

opening therein, the distal end of said finger member being located at about the central opening therein, the periphery of said generally rectangularly-shaped plate-like member defining a plane, the distal end of said finger member being displaced from said plane.

18. The spring member of claim 17, further comprising a plurality of finger members extending generally inwardly from the periphery of said generally rectangularly-shaped plate like member so that respective distal ends of said plurality of finger members substantially define the central opening in said generally rectangularly-shaped plate-like member.

19. The spring member of claim 18, wherein said spring member comprises a beryllium-copper alloy.

20. A semiconductor assembly, comprising:

a semiconductor package having a lid and a substrate;
semiconductor package receiver means for receiving said semiconductor package;

clamp means operatively associated with said semiconductor package and said semiconductor package receiver means for applying a clamping force to the lid of said semiconductor package to hold said semiconductor package to said semiconductor package receiver means; and

biasing means positioned between said clamp means and the substrate of said semiconductor package for transferring a portion of the clamping force from the lid of said semiconductor package to the substrate of said semiconductor package.